

Summary of Meeting #16, of RTCA SC-186, Working Group 5
[For the Development of Revision A of a UAT MOPS]
<http://adsb.tc.faa.gov/WG5.htm>

The 16th meeting of Working Group 5 (WG-5) was held 17 September 2003, in the offices of the Air Line Pilots Association in Washington DC in conjunction with the RTCA SC-186 Plenary, held 18 September 2003. The meeting was called to order at 9 a.m. on 17 September 2003 by Co-Chairman George Ligler. George welcomed all attendees and asked that each one introduce themselves and their organization. The attendees during all or part of the meeting session included:

Larry Bachman – JHU – APL	George Ligler – PMEI	David Thomas – Titan - FAATC - ACB-410
Bob Burns – Titan – FAATC – ACB-410	Chris Moody – Mitre CAASD	Warren Wilson, Mitre
Gary Furr – Titan - FAATC - ACB-410	Tom Mosher – Garmin	Gene Wong – FAA – AND-530
Richard Jennings – FAA (AIR-130)	Tom Pagano – FAATC – ACB-410	

The following known regrets to attendance to this meeting were received prior to, or during the meeting:

- Nikos Fistas, Eurocontrol Headquarters
- Ed Valovage, Sensis Corp.
- William Thedford, Advanced Aeronautics Consulting and Services

1. George began the meeting by offering a few comments concerning the progress of the ICAO ACP WG-C UAT Subgroup, which has held four meetings thus far, the last of which was in Brussels reviewing the drafts of the UAT SARPS, the UAT Technical Manual, the UAT SARPS Validation Plan and the Validation Cross Reference Index (VCRI). The next meeting of the UAT Subgroup will be held in Toulouse France during the week of 20 October in conjunction with a meeting of ACP WG-C and at that meeting, the UAT Subgroup plans to request approval of the UAT SARPS effort entering a Validation Phase, which is expected to last about one year (until late 2004). After the Validation Phase is completed, WG-C will review the Validation work and would then be in a position to recommend to the ACP that the UAT SARPS be approved at an ACP meeting sometime in 2005. If the UAT SARPS are approved by the Panel, the Air Navigation Commission would consider the Panel's recommendation and, if the Commission adopted the recommendation, issue a State letter requesting State review prior to incorporation of the SARPs into ICAO Annex 10. UAT SARPs applicability would perhaps occur in 2006-2007.
2. George continued by discussing Agenda Item #3 with a review of actions taken on the Flight Plan ID Issue. George reported that he held a meeting with FAA ATC and that an agreement was reached that there was a NAS-wide requirement for something in addition to the ICAO 24-bit address that could be used to identify uniquely aircraft and flight plan. Additionally George reported that there was no on-going program today to actually implement the use of the ICAO 24-bit designator in the En-Route automation system.
3. The Working Group then began review of Working Paper WP-15-08, presented by Tom Mosher and Chris Moody since it had not been reviewed at Meeting 15 because of lack of time. WP-15-08 proposed a format for Information Frames that would contain the incremental units of information conveyed in the UAT Ground Uplink Message. This

framework of Information Frames offers the flexibility to support various kinds of uplink information, as well as a mixture of information types within each Ground Uplink Message. It was recommended that this Information Frame format be accepted by the Working Group as a change to the UAT MOPS, as well as become an entry into the UAT Technical Manual. After discussion, the Working Group *agreed* to accept the Working Paper recommendation and directed Gary Furr to include the proposed changes into the list of proposed changes to DO-282. The Working Group further directed Chris Moody to recommend to the UAT Subgroup that this format be accepted and codified in the UAT Technical Manual.

4. The Working Group then began review of Working Paper UAT-WP-15-09, presented by Tom Mosher. This Working Paper discussed a proposed revision to the Test Procedure in §2.4.10.3 for verifying when received messages are Applicable Messages. The existing test procedure in §2.4.10.3 of DO-282 requires the use of an external report interface, which is inconsistent with other requirements in the document. Following Working Group discussion, it was *agreed* to accept the recommended changes proposed in the Working Paper. The Working Group directed Gary Furr to include the proposed changes into the list of proposed changes to DO-282.
5. Continuing with Agenda Item #4, the Working Group began review of Working Paper UAT-WP-16-02, as presented by Larry Bachman, Ed Valovage and Tom Mosher. This Working Paper addressed an Action Item that was assigned during the Working Group Teleconference on 6 August 2003 regarding whether the minimum requirements for the processing of sync trigger events are fully specified, particularly with regard to the minimum rate at which overlapping sync triggers will occur in high density traffic scenarios. In RTCA/DO-282 subparagraph §2.2.8.3.3, the minimum requirements for processing ADS-B Sync Trigger events do not address the expected rate at which overlapping message events will occur (i.e. gives no guidance on the rate of occurrence of detectable overlapping messages). The present test procedure (§2.4.8.3.3) suggests that detecting 100 overlapping messages per second is sufficient to validate the sync detection requirements. Working Paper WP-16-02 attempted to determine whether the presently stated requirements are sufficient, and whether additional requirements and test procedures are necessary. After Working Group discussion, it was *agreed* in principle that we need to define the number of re-trigger events, but the exact language could not be agreed to during the meeting. Larry Bachman, Tom Mosher, Warren Wilson and Tom Pagano agreed to accept an **Action Item** to make revisions to WP-16-02 and present the revisions to the Working Group prior to 10/31/03.
6. The Working Group agreed to hold a teleconference on 6 November 2003 between 1:00pm and 4:00pm EST for the purpose of reviewing changes requested to WP-16-02, as well as for continuing discussions on a set of possible changes, presented during this meeting as WP-16-01, that might be considered if the Working Group agrees to publish a Change-1 to DO-282. It was agreed that a Change-1 would be desirable to notify manufacturers of several items in DO-282 that have been found to be in error, or where change has been requested as a result of review of the document by the ICAO ACP WG-C UAT Subgroup via review of the draft UAT SARPS and UAT Technical Manual.

Dates/Time	Meeting Place
6 November 2003 1:00pm – 4:00pm EST	WG-5 will hold a teleconference for the purpose of reviewing a set of possible changes to DO-282 that would be necessary or desirable if the Working Group receives approval from RTCA SC-186 to publish a Change-1 to DO-282. Review items will also include a revision to Working Paper WP-16-02, and proposed changes to DO-282 related to the Diplexer.
5 December 2003	Next RTCA SC-186 Plenary to be held at RTCA, Washington DC. No specific future WG-5 meeting was agreed to during Meeting 16.

7. Following Agenda Item #5, Tom Pagano discussed the current status of the Diplexer testing and preparations for changes to DO-282 with respect to added requirements and test procedures for the Diplexer. Tom reported that most of the Diplexer testing had been completed and that work was under way to write text for requirements in section 2.2 and for test procedures in sections 2.3 and 2.4 of DO-282. It is anticipated that this draft text will be available for review prior to the 6 November Working Group teleconference.
8. The Working Group then turned to the review of Working Paper WP-16-01, which is a collection of possible changes that need to be made to DO-282, at a future point in time when the Working Group agrees to publish a “Change 1” to the document. The Working Group reviewed only those items that had not been previously agreed to during the Working Group teleconference of 8/6/03. These items were presented in the Working Paper with YELLOW highlighting. Changes that were made and agreed to will be captured in the “Proposed Change Document” and presented to the Working Group again prior to the scheduled teleconference on 6 November for continuing consideration of proposed changes. Review of WP-16-01 was halted at 5pm and the meeting was adjourned. Changes that have been agreed to by the Working Group will be presented on the WG-5 web site in a table format for ease in tracking proposed changes to DO-282.

All Working Papers for all WG-5 Meetings, as well as the Meeting Agendas, Meeting Minutes and Meeting Schedules will continue to be posted on the ADS-B UAT WG-5 web site located at: <http://adsb.tc.faa.gov/WG5.htm>